

# SEQUENCE LISTING

<110> LUCHE, Ralf M.  
WEI, Bo

<120> DSP-14 DUAL-SPECIFICITY PHOSPHATASE

<130> 200125.422US

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<150> 60/201,322

<151> 2000-05-02

<160> 16

<170> PatentIn Ver. 2.1

<210> 1

<211> 1165

<212> DNA

<213> Homo sapiens

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<210> 2

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<212> PRT

<213> Homo sapiens

<400> 2

Met Thr Ser Gly Glu Val Lys Thr Ser Leu Lys Asn Ala Tyr Ser Ser  
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Ala Lys Arg Leu Ser Pro Lys Met Glu Glu Glu Gly Glu Glu Glu Asp  
20 25 30

Tyr Cys Thr Pro Gly Ala Phe Glu Leu Glu Arg Leu Phe Trp Lys Gly  
35 40 45

Ser Pro Gln Tyr Thr His Val Asn Glu Val Trp Pro Lys Leu Tyr Ile  
50 55 60

Gly Asp Glu Ala Thr Ala Leu Asp Arg Tyr Arg Leu Gln Lys Ala Gly  
65 70 75 80

Phe Thr His Val Leu Asn Ala Ala His Gly Arg Trp Asn Val Asp Thr  
85 90 95

Gly Pro Asp Tyr Tyr Arg Asp Met Asp Ile Gln Tyr His Gly Val Glu  
100 105 110

Ala Asp Asp Leu Pro Thr Phe Asp Leu Ser Val Phe Phe Tyr Pro Ala  
115 120 125

Ala Ala Phe Ile Asp Arg Ala Leu Ser Asp Asp His Ser Lys Ile Leu  
130 135 140

Val His Cys Val Met Gly Arg Ser Arg Ser Ala Thr Leu Val Leu Ala  
145 150 155 160

Tyr Leu Met Ile His Lys Asp Met Thr Leu Val Asp Ala Ile Gln Gln  
165 170 175

Val Ala Lys Asn Arg Cys Val Leu Pro Asn Arg Gly Phe Leu Lys Gln  
180 185 190

Leu Arg Glu Leu Asp Lys Gln Leu Val Gln Gln Arg Arg Arg Ser Gln  
195 200 205

Arg Gln Asp Gly Glu Glu Glu Asp Gly Arg Glu Leu  
210 215 220

Sub A1

<210> 3  
<211> 19  
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<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide

<400> 3  
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1 5 10 15

Tyr Leu Met

<210> 4  
<211> 24  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide

<400> 4  
Asn Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Gly  
1 5 10 15

Thr Asn Ile Leu Ala Tyr Leu Met  
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<210> 5  
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<212> DNA  
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<223> Description of Artificial Sequence: Nucleotide  
primer

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<210> 6  
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<212> DNA

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SUBA1

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide primer

<400> 6

cacaaggaca tgaccctggt ggacgcca

28

<210> 7

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Nucleotide primer

<400> 7

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<210> 8

<211> 170

<212> PRT

<213> Homo sapiens

<400> 8

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Pro Leu Ser Asn Ser Gln Pro Ser Phe Pro Val Glu Ile Leu Pro Phe  
20 25 30

Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Glu  
35 40 45

Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn  
50 55 60

Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile Pro Ile Ser  
65 70 75 80

Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser  
85 90 95

Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu Val His Cys

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SubA1

100

105

110

Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met  
115 120 125

Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile Val Lys Met  
130 135 140

Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu  
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Asp Phe Glu Arg Thr Leu Gly Leu Ser Ser  
165 170

<210> 9

<211> 168

<212> PRT

<213> Homo sapiens

<400> 9

Asp Arg Glu Leu Pro Ser Ser Ala Thr Glu Ser Asp Gly Ser Pro Val  
1 5 10 15

Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr  
20 25 30

Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr  
35 40 45

Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe  
50 55 60

Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His  
65 70 75 80

Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile  
85 90 95

Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala  
100 105 110

Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys  
115 120 125

Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys Lys  
130 135 140

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SubA1

Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe  
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Glu Arg Thr Leu Gly Leu Ser Ser  
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<210> 10

<211> 157

<212> PRT

<213> Homo sapiens

<400> 10

Gly Ala Thr Pro Pro Pro Val Gly Leu Arg Ala Ser Phe Pro Val Gln  
1 5 10 15

Ile Leu Pro Asn Leu Tyr Leu Gly Ser Ala Arg Asp Ser Ala Asn Leu  
20 25 30

Glu Ser Leu Ala Lys Leu Gly Ile Arg Tyr Ile Leu Asn Val Thr Pro  
35 40 45

Asn Leu Pro Asn Phe Phe Glu Lys Asn Gly Asp Phe His Tyr Lys Gln  
50 55 60

Ile Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Arg Phe Phe Pro  
65 70 75 80

Glu Ala Ile Glu Phe Ile Asp Glu Ala Leu Ser Gln Asn Cys Gly Val  
85 90 95

Leu Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr Val Thr Val  
100 105 110

Ala Tyr Leu Met Gln Lys Leu His Leu Ser Leu Asn Asp Ala Tyr Asp  
115 120 125

Leu Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met  
130 135 140

Gly Gln Leu Leu Asp Phe Glu Arg Ser Leu Arg Leu Glu  
145 150 155

<210> 11

<211> 170

<212> PRT

<213> Homo sapiens

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SubA1

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<400> 11

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Gln Pro Cys Leu Pro Val Pro Ser Val Gly Leu Thr Arg Ile Leu Pro  
20 25 30  
His Leu Tyr Leu Gly Ser Gln Lys Asp Val Leu Asn Lys Asp Leu Met  
35 40 45  
Thr Gln Asn Gly Ile Ser Tyr Val Leu Asn Ala Ser Asn Ser Cys Pro  
50 55 60  
Lys Pro Asp Phe Ile Cys Glu Ser Arg Phe Met Arg Val Pro Ile Asn  
65 70 75 80  
Asp Asn Tyr Cys Glu Lys Leu Leu Pro Trp Leu Asp Lys Ser Ile Glu  
85 90 95  
Phe Ile Asp Lys Ala Lys Leu Ser Ser Cys Gln Val Ile Val His Cys  
100 105 110  
Leu Ala Gly Ile Ser Arg Ser Ala Thr Ile Ala Ile Ala Tyr Ile Met  
115 120 125  
Lys Thr Met Gly Met Ser Ser Asp Asp Ala Tyr Arg Phe Val Lys Asp  
130 135 140  
Arg Arg Pro Ser Ile Ser Pro Asn Phe Asn Phe Leu Gly Gln Leu Leu  
145 150 155 160  
Glu Tyr Glu Arg Thr Leu Lys Leu Leu Ala  
165 170

<210> 12

<211> 168

<212> PRT

<213> Homo sapiens

<400> 12

Pro Ala Gln Ala Leu Pro Pro Ala Gly Ala Glu Asn Ser Asn Ser Asp  
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20 25 30

SubA1

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Tyr	Leu	Tyr	Leu	Gly	Ser	Cys	Asn	His	Ser	Ser	Asp	Leu	Gln	Gly	Leu
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Gln	Ala	Cys	Gly	Ile	Thr	Ala	Val	Leu	Asn	Val	Ser	Ala	Ser	Cys	Pro
	50					55					60				
Asn	His	Phe	Glu	Gly	Leu	Phe	His	Tyr	Lys	Ser	Ile	Pro	Val	Glu	Asp
	65				70					75					80
Asn	Gln	Met	Val	Glu	Ile	Ser	Ala	Trp	Phe	Gln	Glu	Ala	Ile	Ser	Phe
			85						90					95	
Ile	Asp	Ser	Val	Lys	Asn	Ser	Gly	Gly	Arg	Val	Leu	Val	His	Cys	Gln
		100						105						110	
Ala	Gly	Ile	Ser	Arg	Ser	Ala	Thr	Ile	Cys	Leu	Ala	Tyr	Leu	Ile	Gln
	115						120					125			
Ser	His	Arg	Val	Arg	Leu	Asp	Glu	Ala	Phe	Asp	Phe	Val	Lys	Gln	Arg
	130					135					140				
Arg	Gly	Val	Ile	Ser	Pro	Asn	Phe	Ser	Phe	Met	Gly	Gln	Leu	Leu	Gln
	145				150					155					160
Leu	Glu	Thr	Gln	Val	Leu	Cys	His								
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<210> 13  
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 <212> PRT  
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<400> 13

Pro	Leu	Ser	Thr	Ser	Val	Pro	Asp	Ser	Ala	Glu	Ser	Gly	Cys	Ser	Ser
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Cys	Ser	Thr	Pro	Leu	Tyr	Asp	Gln	Gly	Gly	Pro	Val	Glu	Ile	Leu	Pro
			20					25					30		
Phe	Leu	Tyr	Leu	Gly	Ser	Ala	Tyr	His	Ala	Ser	Arg	Lys	Asp	Met	Leu
	35						40					45			
Asp	Ala	Leu	Gly	Ile	Thr	Ala	Leu	Ile	Asn	Val	Ser	Ala	Asn	Cys	Pro
	50					55					60				
Asn	His	Phe	Glu	Gly	His	Tyr	Gln	Tyr	Lys	Ser	Ile	Pro	Val	Glu	Asp
	65				70					75					80



SubA1

Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala Ile Asp Phe  
85 90 95

Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val His Cys Gln  
100 105 110

Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Arg  
115 120 125

Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val Lys Gln Arg  
130 135 140

Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln  
145 150 155 160

Phe Glu Ser Gln Val Leu Ala Pro His  
165

<210> 14

<211> 169

<212> PRT

<213> Homo sapiens

<400> 14

Pro Val Pro Pro Ser Ala Thr Glu Pro Leu Asp Leu Gly Cys Ser Ser  
1 5 10 15

Cys Gly Thr Pro Leu His Asp Gln Gly Gly Pro Val Glu Ile Leu Pro  
20 25 30

Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ala Arg Arg Asp Met Leu  
35 40 45

Asp Ala Leu Gly Ile Thr Ala Leu Leu Asn Val Ser Ser Asp Cys Pro  
50 55 60

Asn His Phe Glu Gly His Tyr Gln Tyr Lys Cys Ile Pro Val Glu Asp  
65 70 75 80

Asn His Lys Ala Asp Ile Ser Ser Trp Phe Met Glu Ala Ile Glu Tyr  
85 90 95

Ile Asp Ala Val Lys Asp Cys Arg Gly Arg Val Leu Val His Cys Gln  
100 105 110

Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Met

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SubA1

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115 120 125  
 Lys Lys Arg Val Arg Leu Glu Glu Ala Phe Glu Phe Val Lys Gln Arg  
 130 135 140  
 Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln  
 145 150 155 160  
 Phe Glu Ser Gln Val Leu Ala Thr Ser  
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 <400> 15  
 Ser Glu Arg Ala Leu Ile Ser Gln Cys Gly Lys Pro Val Val Asn Val  
 1 5 10 15  
 Ser Tyr Arg Pro Ala Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro  
 20 25 30  
 Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Lys Cys Glu Phe Leu  
 35 40 45  
 Ala Asn Leu His Ile Thr Ala Leu Leu Asn Val Ser Arg Arg Thr Ser  
 50 55 60  
 Glu Ala Cys Met Thr His Leu His Tyr Lys Trp Ile Pro Val Glu Asp  
 65 70 75 80  
 Ser His Thr Ala Asp Ile Ser Ser His Phe Gln Glu Ala Ile Asp Phe  
 85 90 95  
 Ile Asp Cys Val Arg Glu Lys Gly Gly Lys Val Leu Val His Cys Glu  
 100 105 110  
 Ala Gly Ile Ser Arg Ser Pro Thr Ile Cys Met Ala Tyr Leu Met Lys  
 115 120 125  
 Thr Lys Gln Phe Arg Leu Lys Glu Ala Phe Asp Tyr Ile Lys Gln Arg  
 130 135 140  
 Arg Ser Met Val Ser Pro Asn Phe Gly Phe Met Gly Gln Leu Leu Gln  
 145 150 155 160

Tyr Glu Ser Glu Ile Leu Pro Ser Thr Pro Asn  
165 170

<210> 16

<211> 180

<212> PRT

<213> Homo sapiens

<400> 16

Ser Gly Ser Phe Glu Leu Ser Val Gln Asp Leu Asn Asp Leu Leu Ser  
1 5 10 15

Asp Gly Ser Gly Cys Tyr Ser Leu Pro Ser Gln Pro Cys Asn Glu Val  
20 25 30

Thr Pro Arg Ile Tyr Val Gly Asn Ala Ser Val Ala Gln Asp Ile Pro  
35 40 45

Lys Leu Gln Lys Leu Gly Ile Thr His Val Leu Asn Ala Ala Glu Gly  
50 55 60

Arg Ser Phe Met His Val Asn Thr Asn Ala Asn Phe Tyr Lys Asp Ser  
65 70 75 80

Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe Asn  
85 90 95

Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala Leu  
100 105 110

Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr Ser  
115 120 125

Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys Met  
130 135 140

Asp Val Lys Ser Ala Leu Ser Ile Val Arg Gln Asn Arg Glu Ile Gly  
145 150 155 160

Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg Leu  
165 170 175

Ala Lys Glu Gly  
180

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